

Receipt date: 03/23/2011

PTO/SB/08a (07-09)

Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)				<i>Complete if Known</i>			
				Application Number		10/693,419	
				Filing Date		2003-10-23	
				First Named Inventor		WALTON; J. Rodney	
				Art Unit		2467	
				Examiner Name		Marcus Smith	
Sheet	1	of	4	Attorney Docket No: 020554			

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
	001	US5832387	11-03-1998	BAE; Hee-Moon, et al.	
	002	US6163296	12-19-2000	LIER; Erik, et al.	
	003	US6862440	03-01-2005	SAMPATH; Hemanth	
	004	US6987819	01-17-2006	THOMAS; Timothy A., et al.	
	005	US7012978	03-14-2006	TALWAR; Shilpa	
	006	US7095709	08-22-2006	WALTON; Jay R., et al.	
	007	US7298805	11-20-2007	WALTON; J. Rodney, et al.	
	008	US7324429	01-29-2008	WALTON; J. Rodney, et al.	
	009	US7636573	12-22-2009	WALTON; Jay R., et al.	
	010	US7653415	01-26-2010	VAN ROOYEN; Pieter	
	011	US20020072336	06-13-2002	MOTTIER; David	
	012	US20020127978	09-12-2002	KHATRI; Bhavin S.	
	013	US20040052228	03-18-2004	TELLADO; Jose, et al.	
	014	US20080285488	11-20-2008	WALTON; J. Rodney, et al.	
	015	US20080285669	11-20-2008	WALTON; J. Rodney, et al.	
	016	US20100183088	07-22-2010	INANOGLU; Hakan	
	017	US20100260060	10-14-2010	ABRAHAM; Santosh, et al.	

FOREIGN PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /MS/

EXAMINER SIGNATURE

/Marcus Smith/

DATE CONSIDERED

04/05/2011

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Receipt date: 03/23/2011

PTO/SB/08a (07-09)

Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)				<i>Complete if Known</i>	
				Application Number	10/693,419
				Filing Date	2003-10-23
				First Named Inventor	WALTON; J. Rodney
				Art Unit	2467
				Examiner Name	Marcus Smith
Sheet	2	of	4	Attorney Docket No: 020554	

		Country Code ³ - Number ⁴ Kind Code ⁵ (if known)	MM-DD-YYYY		Relevant Passages or Relevant Figures Appear	T ⁶
	018	CA2690247A1	10-11-2001	QUALCOMM INC [US]		<input type="checkbox"/>
	019	EP1133070A2	09-12-2001	MATSUSHITA ELECTRIC IND CO LTD [JP]		<input type="checkbox"/>
	020	JP09135230	05-20-1997	JISEDAI DIGITAL TELEVISION HOSO SYST KENKYUSHO:KK.		<input checked="" type="checkbox"/>
	021	RU2157592	10-10-2000	QUALCOMM INCORPORATED.		<input type="checkbox"/>
	022	TW419912	01-21-2001	INDUSTRIAL TECHNOLOGY RESEARCH INSTITUTE.		<input type="checkbox"/>
	023	WO0169801A2	09-20-2001	INTERDIGITAL TECH CORP [US]		<input type="checkbox"/>
	024	WO9903224A1	01-21-1999	ERICSSON TELEFON AB L M [SE]		<input type="checkbox"/>

NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			T2
	025	CHUNG, J. et al: "Multiple antenna systems for 802.16 systems." IEEE 802.16 Broadband Wireless Access Working Group < http://ieee802.org/l6 >, IEEE 802.16abc-01/31, 2001-09-07, Pages 1-5.			<input type="checkbox"/>
	026	GORE D. A., ET AL: "Selecting an optimal set of transmit antennas for a low rank matrix channel." 2000 IEEE INTERNATIONAL CONFERENCE ON ACOUSTICS, SPEECH, AND SIGNAL PROCESSING. PROCEEDINGS. (ICASSP). ISTANBUL, TURKEY, JUNE 5-9, 2000, NEW YORK, NY; IEEE, US, vol. 5 of 6, 5 June 2000 (2000-06-05), pages 2785-2788, XP001035763, abstract.			<input type="checkbox"/>
	027	Office Action in Canadian application 2501634 corresponding to US application 10/610,446, citing CA2690247 dated 2011-02-25 (030031CA) .			<input type="checkbox"/>
	028	The Authoritative Dictionary of IEEE Standards Terms, Seventh Edition, IEEE Press: New York (December 2000), Page 902.			<input type="checkbox"/>

EXAMINER SIGNATURE

/Marcus Smith/

DATE CONSIDERED

04/05/2011

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /MS/

Receipt date: 03/23/2011

PTO/SB/08a (07-09)

Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

<p>Substitute for form 1449/PTO</p> <p>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</p> <p><i>(Use as many sheets as necessary)</i></p>				Complete if Known	
				Application Number	10/693,419
				Filing Date	2003-10-23
				First Named Inventor	WALTON; J. Rodney
				Art Unit	2467
				Examiner Name	Marcus Smith
Sheet	3	of	4	Attorney Docket No: 020554	

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T2
	029	Translation of Office Action in Japanese application 2005-501686 corresponding to US application 10/375,162 , citing JP09135230 dated 2011-02-15 (030075JP) .	<input type="checkbox"/>
	030	WONG, Cheong. et al., "Multiuser OFDM with Adaptive Subcarrier, Bit and Power Allocation," October 1999, IEEE Journal on Selected Areas in Communications, Vol. 17, No. 10, pages 1747-1758.	<input type="checkbox"/>

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /MS/

EXAMINER SIGNATURE

/Marcus Smith/

DATE CONSIDERED

04/05/2011

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.